

### **III. SUMMARY OF INTERPRETIVE THEMES**

The 1987 State Parks Act defines the purposes of the state parks system. It establishes that:

*The State of North Carolina offers unique archaeologic, geologic, biologic, scenic and recreation resources. These resources are part of the heritage of the people of this State. The heritage of a people should be preserved and managed by those people for their use and for the use of their visitors and descendants.*

It further provides that:

*Park lands are to be used by the people of this State and their visitors in order to promote understanding of and pride in the natural heritage of this State.*

One of the best methods of meeting these purposes is through environmental education. The definition of environmental education as set forth in *The North Carolina Environmental Education Plan* is given below.

*Environmental Education is an active process that increases awareness, knowledge and skills that result in understanding, commitment, informed decisions and constructive action to ensure stewardship of all interdependent parts of the earth's environment.*

Lake Waccamaw is one of the largest bay lakes in the world. With its unique water chemistry, large numbers of freshwater mussels and endemic fish, this lake is truly one of a kind! The park staff provides a variety of environmental education and interpretive programs to encourage protection of the lake's water quality and biodiversity. Because mussels, fish and snails are not easily viewed by the park visitor, exhibits in the visitor's center and along park trails play a major role in raising awareness of, and fostering appreciation for the lake's unique fauna and flora.

Lake Waccamaw State Park has three primary themes and eight secondary themes. In priority order, the primary themes are diversity of aquatic life, the unique water chemistry, and the origin of Carolina bays.

#### **PRIMARY INTERPRETIVE THEMES**

##### **Diversity of Aquatic Life**

This primary theme explores the amazing diversity of animal life found in the lake with a focus on freshwater mollusks and endemic fish. Of all the Carolina bays, Lake Waccamaw has the greatest number of aquatic species. It also has one of the largest populations of freshwater mussels in the state, estimated at over one billion individuals. The park's Environmental Education Learning Experience (EELE) includes hands-on activities that allow students to study

and inventory freshwater mussels. Major exhibits in the park visitor's center allow visitors to study the lake's fish, snails and mussels without getting wet!

### **Unique Water Chemistry**

Most bay lakes have acidic waters, but Lake Waccamaw has a pH of nearly 7.0 (neutral). The limestone formation in and around the lake buffers the tannic acids flowing into the lake from adjacent swamps. This unique water chemistry allows the lake to support a wide variety of freshwater mussels, snails and fish. Programs and exhibits in this theme area help visitors explore the concept of pH by comparing the acidity of common household liquids with that of Lake Waccamaw and other nearby lakes. In addition, the park hosts seminars and advanced classes in other aspects of water chemistry. The need to protect the lake's water quality is emphasized in all the interpretive programs, exhibits and educational materials.

### **Origin of Carolina Bays**

Most visitors are intrigued by the mysterious origins of the Carolina bays. The park staff provides programs and exhibits that demonstrate when and how bays may have formed and evolved to their current conditions. Although scientific theories are highlighted, the visitors are encouraged to use their imaginations to develop theories of their own.

## **SECONDARY INTERPRETIVE THEMES**

Secondary themes for the park support and supplement the primary themes, and are listed below.

- Life on the Sand Rim
- Natural Communities within the Watershed of Lake Waccamaw
- Role of Prescribed Fire in Maintaining Natural Communities
- Carnivorous Plants
- Endangered Species
- Water Safety
- Alligators
- Hydrology of the Lake and Its Relationship to the Regional Aquifer
- Annual Mayfly Hatch and Its Relationship to Water Quality and Chemistry

03/07